

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Currently amended) A method for facilitating use of a collation
2 element that supports a large number of characters, comprising:
3 receiving the collation element;
4 reading a primary weight value from a primary weight field within the
5 collation element;
6 if the primary weight value falls within a reserved set of values, ~~reading an~~
7 ~~additional portion of~~ extending the primary weight value from a secondary weight
8 ~~field within the collation element and a tertiary weight field within~~ field to include
9 all bits within the collation element, wherein each different primary weight value
10 in the extended primary weight value field identifies a different character,
11 whereby the size of the extended primary weight field increases the number of
12 characters that can be represented by the collation element; and
13 if the primary weight value is not within the reserved set of values,
14 reading a secondary weight value from the secondary
15 weight field within the collation element, and
16 reading a tertiary weight value from the tertiary weight field
17 within the collation element,
18 wherein the primary weight value identifies a character;
19 wherein the secondary weight value can specify an accent
20 on the character; and

21 wherein the tertiary weight value can specify case
22 information for the character.

1 2. (Original) The method of claim 1, wherein if the primary weight value
2 falls within a reserved set of values, the method additionally comprises:
3 setting the secondary weight value to a secondary default value; and
4 setting the tertiary weight value to a tertiary default value.

1 3. (Original) The method of claim 1, wherein the collation element adheres
2 to a structure specified in Unicode Technical Report No. 10.

1 4 (Canceled).

1 5. (Original) The method of claim 1, wherein the collation element is four
2 bytes in size, of which the primary weight field is two bytes, the secondary weight
3 field is one byte and the tertiary weight field is one byte, unless a value in the
4 primary weight field belongs to the reserved set of values, in which case the
5 primary weight field takes up all four bytes of the collation element.

1 6. (Currently amended) The method of claim 5, wherein the reserved set of
2 values for the primary weight value includes hexadecimal values 0xFFFF0-
3 0xFFFF.

1 7. (Original) The method of claim 1, wherein the collation element is taken
2 from a collation weight table that is used to map characters to collation weights in
3 order to establish an ordering between strings of characters.

1 8. (Original) The method of claim 7, further comprising constructing a
2 sorting key for a string by:
3 reading each character in the string;
4 looking up a corresponding collation element for each character from the
5 collation weight table; and
6 adding the corresponding collation element for each character to the
7 sorting key.

1 9. (Original) The method of claim 8,
2 wherein the sorting key is associated with a record within a database; and
3 wherein the sorting key is used to construct a linguistic index for the
4 database.

1 10. (Currently amended) A computer-readable storage medium storing
2 instructions that when executed by a computer cause the computer to perform a
3 method for facilitating use of a collation element that supports a large number of
4 characters, the method comprising:
5 receiving the collation element;
6 reading a primary weight value from a primary weight field within the
7 collation element;
8 if the primary weight value falls within a reserved set of values, ~~reading an~~
9 ~~additional portion of~~extending the primary weight value from a secondary weight
10 ~~field within the collation element and a tertiary weight field within~~field to include
11 all bits within the collation element, wherein each different primary weight value
12 in the extended primary weight value field identifies a different character,
13 whereby the size of the extended primary weight field increases the number of
14 characters that can be represented by the collation element; and
15 if the primary weight value is not within the reserved set of values,

16 reading a secondary weight value from the secondary
17 weight field within the collation element, and
18 reading a tertiary weight value from the tertiary weight field
19 within the collation element,
20 wherein the primary weight value identifies a character;
21 wherein the secondary weight value can specify an accent
22 on the character; and
23 wherein the tertiary weight value can specify case
24 information for the character.

1 11. (Original) The computer-readable storage medium of claim 10,
2 wherein if the primary weight value falls within a reserved set of values, the
3 method additionally comprises:
4 setting the secondary weight value to a secondary default value; and
5 setting the tertiary weight value to a tertiary default value.

1 12. (Original) The computer-readable storage medium of claim 10,
2 wherein the collation element adheres to a structure specified in Unicode
3 Technical Report No. 10.

1 13 (Canceled).

1 14. (Original) The computer-readable storage medium of claim 10,
2 wherein the collation element is four bytes in size, of which the primary weight
3 field is two bytes, the secondary weight field is one byte and the tertiary weight
4 field is one byte, unless a value in the primary weight field belongs to the reserved
5 set of values, in which case the primary weight field takes up all four bytes of the
6 collation element.

1 15. (Currently amended) The computer-readable storage medium of claim
2 14, wherein the reserved set of values for the primary weight value includes
3 hexadecimal values 0xFFFF0-0xFFFF.

1 16. (Original) The computer-readable storage medium of claim 10,
2 wherein the collation element is taken from a collation weight table that is used to
3 map characters to collation weights in order to establish an ordering between
4 strings of characters.

1 17. (Original) The computer-readable storage medium of claim 16,
2 wherein the method further comprises constructing a sorting key for a string by:
3 reading each character in the string;
4 looking up a corresponding collation element for each character from the
5 collation weight table; and
6 adding the corresponding collation element for each character to the
7 sorting key.

1 18. (Original) The computer-readable storage medium of claim 17,
2 wherein the sorting key is associated with a record within a database; and
3 wherein the sorting key is used to construct a linguistic index for the
4 database.

1 19. (Currently amended) An apparatus that facilitates use of a collation
2 element that supports a large number of characters, comprising:
3 an assignment mechanism that is configured to read a primary weight
4 value from a primary weight field within the collation element;
5 wherein if the primary weight value falls within a reserved set of values,
6 | the assignment mechanism is configured to ~~read an additional portion of~~ extend

7 | the primary weight value from a secondary weight field within the collation
8 | element and a tertiary weight field within field to include all bits within the
9 | collation element, wherein each different primary weight value in the extended
10 | primary weight value field identifies a different character, whereby the size of the
11 | extended primary weight field increases the number of characters that can be
12 | represented by the collation element; and

13 | wherein if the primary weight value is not within the reserved set of
14 | values, the assignment mechanism is configured to,
15 | read a secondary weight value from the secondary weight
16 | field within the collation element, and to
17 | read a tertiary weight value from the tertiary weight field
18 | within the collation element,
19 | wherein the primary weight value identifies a character;
20 | wherein the secondary weight value can specify an accent
21 | on the character; and
22 | wherein the tertiary weight value can specify case
23 | information for the character.

1 | 20. (Original) The apparatus of claim 19, wherein if the primary weight
2 | value falls within the reserved set of values, the assignment mechanism is
3 | configured to:

4 | set the secondary weight value to a secondary default value; and to
5 | set the tertiary weight value to a tertiary default value.

1 | 21. (Original) The apparatus of claim 19, wherein the collation element
2 | adheres to a structure specified in Unicode Technical Report No. 10.

1 | 22 (Canceled).

1 23. (Original) The apparatus of claim 19, wherein the collation element is
2 four bytes in size, of which the primary weight field is two bytes, the secondary
3 weight field is one byte and the tertiary weight field is one byte, unless a value in
4 the primary weight field belongs to the reserved set of values, in which case the
5 primary weight field takes up all four bytes of the collation element.

1 24. (Currently amended) The apparatus of claim 23, wherein the reserved
2 set of values for the primary weight value includes hexadecimal values 0xFFFF0-
3 0xFFFF.

1 25. (Original) The apparatus of claim 19, wherein the collation element is
2 taken from a collation weight table that is used to map characters to collation
3 weights in order to establish an ordering between strings of characters.

1 26. (Original) The apparatus of claim 25, further comprising a key
2 construction mechanism for constructing a sorting key for a string, wherein the
3 key construction mechanism is configured to:

4 read each character in the string;
5 lookup a corresponding collation element for each character from the
6 collation weight table; and to
7 add the corresponding collation element for each character to the sorting
8 key.

1 27. (Original) The apparatus of claim 26,
2 wherein the sorting key is associated with a record within a database; and
3 wherein the sorting key is used to construct a linguistic index for the
4 database.